RABIES SPECIMEN SUBMISSION PROTOCOL for THE DIVISION OF CONSOLIDATED LABORATORY SERVICES (DCLS)

GENERAL INFORMATION

DCLS provides laboratory testing support to local, state and federal agencies whose mission includes the prevention of rabies in animals and humans. DCLS operates rabies testing laboratories in Richmond and Abingdon, Virginia. Each laboratory site is responsible for receiving, processing and testing specimens, and providing accurate and prompt reports of analyses to the submitter. Submitters are responsible for collecting and submitting the appropriate specimens for testing with completed submission forms. The laboratories will provide results to the local health department or a submitting agency authorized by the district health director (i.e. local animal control agencies, VDACS, etc.) The laboratories are not responsible for providing test results and/or interpretation to animal owners, individuals who may have been exposed to an infected animal, or owners of animals that require post exposure management.

- ➤ All positive results are telephoned directly to the local health department or the authorized submitting agency.
- > Specimens received by 9:00 a.m. (Monday–Saturday) will be tested on the day of delivery. A telephone number must be supplied for after hours or emergency contact for reporting positive results.

Contact Information: DCLS Richmond Telephone Number: 804-648-4480 DCLS Abingdon Telephone Number: 276-676-5435

- > Emergency testing will require notification from a District Health Director. DCLS can be notified of an emergency test request by telephoning the Emergency Pager Number: 804-418-9923.
- ➤ DCLS offers statewide courier service. Specimens submitted to the courier normally arrive prior to normal business hours the following day (8:15 A.M.). Contact DCLS Customer Service at 804-648-4480 x 109 for information regarding courier sites.

SPECIMEN COLLECTION

Specimen collection guidelines may be obtained from the Virginia Department of Health (VDH) District Office. This information is also available on the VDH website at http://www.vdh.state.va.us/epi/rabies.asp (Rabies Control Guidelines).

A live animal will not be accepted by the laboratory. The animal should be humanely euthanized without damage to the head. The head must then be removed from the body and

submitted intact for examination. Exception: The entire body of small mammals such as bats, mice, squirrels, etc. may be submitted (See Specimen Collection above).

Specimens will be tested if submitted for the following reasons:

- A. Significant human or domestic animal exposure from an animal considered to pose a risk of transmitting rabies. Bats should be tested if there is any possibility of human exposure.
 - > Significant human exposure is defined as a skin-puncturing bite or saliva on a mucous membrane or saliva in a fresh skin penetrating wound.
 - Non-bite exposure to a bat is also significant if there is any possibility of an unrecognized bite (e.g., direct contact with a bat or a bat is discovered in a room with anyone unable to tell whether an exposure took place [e.g., infant, senile or unconscious adult]).
 - ➤ Domestic animal exposure is defined as a dog, cat, other companion animal or livestock that has been bitten or may have been bitten by a suspected rabid animal.
- B. Recommendation from a public health official using guidance found in the most current edition of <u>Human Rabies Prevention-United States</u>, <u>Recommendations of the Advisory Committee on Immunization Practices (ACIP)</u>. This document may be found at the VDH website at http://www.vdh.state.va.us/epi/rabies.asp</u>

SUBMISSION FORM

The submission form <u>must</u> be completed in its entirety and submitted in triplicate to ensure proper identification of the animal as well as providing the necessary information for reporting results of testing. Incomplete information on the submission form will delay the laboratory's ability to report results, and may cause the specimen to be rejected.

SUBMISSION AND PACKAGING

- ➤ All materials collected for rabies diagnosis are to be considered infectious, and appropriate handling and shipping precautions should be taken in order to insure the safety of the collector/submitter, transportation carriers, laboratory staff and the public at large in accordance with 49 CFR Department of Transportation Regulations.
- > Specimens should be submitted to the laboratory <u>promptly and cold</u> to reduce decomposition of the animals. **Use frozen cold packs only.** Do <u>not</u> use "wet" ice when shipping specimens. "Wet" ice may leak through the container possibly causing rejection of specimen for testing.
- ➤ Keep the specimen cold but not frozen. A frozen specimen will delay testing; possibly one full day.
- All specimens should be sprayed or dusted for fleas and ticks with a pesticide prior to

packaging.

> When packaging rabies specimens, wear disposable gloves. All diagnostic specimens must be clearly labeled with a health department or animal control internal number or identifier and the animal species. Specimens **must** be triple packaged:

Suggested Materials for Use and Proper Handling

1) Primary Container: Zip lock bags or heavy-duty plastic bag appropriately sized for

> the specimens with an absorbent material (absorbent pads, paper towels, etc) placed in the bag to prevent blood and body If sharp objects protrude from the fluid from leaking. specimen such as shattered bone, wrap the specimen in several layers of newspaper. Always tightly seal or fasten the

primary container to contain the specimen.

2) Secondary Container: A metal can, heavy plastic pail with a lid or a heavy-duty

plastic bag may be used as the secondary container. These must also be sealed to help prevent leakage of blood or body fluid. The multi-part Rabies Submission Form must be enclosed in a plastic bag (zip lock) and taped to the secondary

container.

3) Rigid Container: A tightly sealed, thick-walled insulated container with or

without an exterior fiberboard liner may be used as the shipping container. The secondary container is placed inside the shipping container along with sufficient frozen cold packs and cushion material to prevent damage to the specimen during

transport.

Note: When shipping more than one specimen in this container each specimen must be individually bagged and placed in secondary containers along with a submission

form attached.

The outside of the rigid container should be cleansed with a disinfectant (example: 10 % bleach: 9 parts water and 1 part fresh household bleach). This will reduce risk of exposure of a potentially positive specimen to anyone handling this package. Make bleach solution fresh each time.

> Secure the shipping container (snap lid or tape) for transport and address the package.

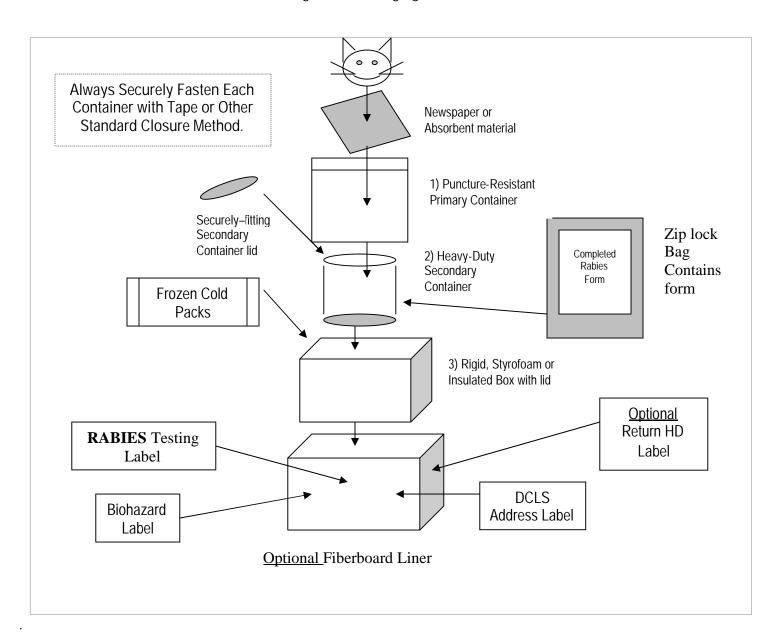
DCLS Richmond 600 N 5th Street Richmond, Va. 23219

Attn: Rabies

DCLS Abingdon 165 East Valley Street Abingdon, Va. 24210

Attn: Rabies

Diagram of Packaging Instructions



Commonwealth of Virginia Rabies Testing and Cooperative Programs

February, 2005

This document summarizes the various programs in which the rabies laboratories around the state of Virginia have been asked to participate.

The following studies are cooperative programs in which the Centers for Disease Control and Prevention (CDC) have elicited state laboratories' assistance for target specimen submission:

CDC Salivary Gland Study: Testing laboratories have been requested to submit the brain material and heads, or capits of rabies-diagnosed rodents (i.e. mice, rats, squirrels, chipmunks, nutria, groundhogs, muskrats, etc.), lagomorphs (rabbits, etc.), or other atypical animal species. These specimens may be forwarded to the DCLS. Shipping instructions are available at the end of this document (see page 4.) Each shipment must comply with shipping regulations detailed in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation.] Upon arrival at CDC, staff removes the rabid animal's salivary glands in order to detect rabies virus/antigen.

CDC Mammary Gland Study: Diagnostic laboratories which have the facilities to receive and accept intact livestock carcasses are requested to necropsy and forward the mammary glands, milk and brain material of rabies-positive animals (i.e. cows, goats, etc.) to CDC. Ship samples on dry ice after notification to:

Rabies Laboratory Attn: Dr. Charles Rupprecht (404) 639-1050 DASH, Bldg. 4, Rm B32 Centers for Disease Control and Prevention 1600 Clifton Road, NE Atlanta, GA 30333

Each shipment must comply with shipping regulations detailed in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation.] Upon arrival at CDC, staff analyzes samples in order to detect rabies virus/antigen.

CDC/VDH/DCLS Monoclonal Typing of Rabies Variants: DCLS-Richmond will perform testing to determine the rabies variant of positive specimens and/or the introduction of new or translocated rabies variants into Virginia. All rabies testing laboratories in Virginia must submit rabies positive specimens to DCLS-Richmond. Rabies-infected brain tissues should be sent as soon as diagnosis is completed to the Richmond Lab. Shipping instructions are available at the end of this document (see page 4.) Each shipment must comply with shipping regulations detailed in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation.]

CDC/VDH Animal Pre-exposure Vaccine Failure: Brain tissue from rabies diagnosed animals which also have a current, valid rabies vaccination are forwarded to CDC for further analysis. VDH/Epi should notify laboratories of the existence of these specimens on a case by case basis since the vaccination status of an animal is not always available at the time of collection and/or submission to the laboratory. VDH/Epi will request that tissues be shipped at that time. For further information, please contact Dr. Julia Murphy at VDH/Epi at (804)864-8141.

The programs detailed below involve the coordination of various state diagnostic rabies laboratories, DCLS and the Virginia Department of Agriculture and Consumer Services (VDACS) animal health laboratories and the United States Department of Agriculture.

USDA Bovine Spongiform Encephalopathy (BSE) Surveillance: Tissue from rabies negative cattle are forwarded for BSE testing to the nearest VDACS laboratory (see list below.) The obex, a portion of brain stem, may be collected by trained submitters. Trained submitters are identified as health professionals or laboratorians who have viewed the APHIS, VS BSE surveillance training CD and have been added to the USDA's list of Virginia submitters. Information about collector training and direct surveillance specimen submission may be obtained by phoning the USDA area office at (804)343-2560 (workload sent in '05: 38; workload so far in '06: 22). Specimens are shipped in leak proof bags or containers as detailed in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation] to the nearest VDACS laboratory Monday thru Thursday. The receiving lab (see list below) should be notified of the impending delivery prior to shipping.

VDACS Scrapie Testing: Rabies-negative brain tissues of sheep and goats received directly from local health departments are forwarded for scrapie testing to the state's regional VDACS laboratories. Tissues must include the brain stem and are packaged in leak proof bags or containers with frozen cold packs. These are shipped in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation] packaging to the nearest regional VDACS laboratory lab on a Monday thru Thursday schedule. The receiving lab (see list below) should be notified of the impending delivery prior to shipping.

Division of Animal and Food Industry Services/Office of Laboratory Services:

Harrisonburg Regional Animal Health Lab Lab Director: Dr. David Brown 116 Reservoir Street Harrisonburg, VA 22801

(Phone: 540-434-3897)

Ivor Regional Animal Health Lab Lab Director: Dr. Barry Dawkins 34591 General Mahone Blvd. Ivor, VA 23866

(Phone: 757-859-6221)

Lynchburg Regional Animal Health Lab Lab Director: Dr. Susan Gardner 4832 Tyreeanna Road Lynchburg, VA 24504 (Phone: 434-947-2518) Warrenton Regional Animal Health Lab Lab Director: Dr. Karl Magura 272 Academy Hill Road Warrenton, VA 20186 (Phone: 540-347-6385)

Wytheville Regional Animal Health Lab Lab Director: Dr. Jack Tate 250 Cassell Road Wytheville, VA 24382 (Phone: 276-228-5501) Arboviral Testing of Rabies Negative Horses: As part of Virginia's Arbovirus Surveillance and Response Plan, the DCLS-Richmond will perform molecular testing for West Nile Fever and Eastern Equine Encephomyelitis virus infection in horse brains diagnosed as rabies-negative. VDACS and rabies diagnostic laboratories should forward rabies negative brain tissues packaged in leak proof bags or containers with frozen cold packs. Shipping instructions are available at the end of this document (see below.) These are shipped in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation] packaging to DCLS on a Monday thru Thursday schedule. DCLS should be notified of the impending delivery prior to shipping by contacting Denise Pettit at (804) 648-4480 ext. 281 (Dee.Pettit@dgs.virginia.gov) or Sean Kelly at (804) 648-4480 ext. 292 (Sean.Kelly@dgs.virginia.gov).

USDA/VDH/DCLS Wildlife Oral Rabies Vaccine Program: DCLS- Abingdon and Richmond laboratories perform testing in support of regional Oral Rabies Vaccine (ORV) programs administrated by USDA and VDH.

Shipments to DCLS-Richmond

Participating entities may utilize DCLS-Richmond Rabies Laboratory in order to facilitate these programs by arranging shipments to DCLS-Richmond which will in turn forward specimens to the proper facility. You should notify the DCLS-Richmond Rabies Section at (804) 648-4480 ext. 271 or 275 by phone or email (Sylvia.Whaley@dgs.virginia.gov) or (Richard.Sexton@dgs.virginia.gov) when forwarding specimens. Please ship Monday through Thursday. The DCLS courier may be utilized or you may ship via private courier to following address:

DCLS Attn: Rabies Lab 600 N. 5th Street Richmond, VA 23219

Each shipment must comply with shipping regulations detailed in IATA 1.5 and 49 CFR Section 1720700 [U.S. Department of Transportation.]

Detailed information or questions about issues related to an individual program may be obtained by contacting by DCLS Immunology/Viral Isolation at (804)648-4480 ext.270 or 271. Information regarding properly packaging specimens to DCLS Richmond, Virginia and DCLS Abingdon, Virginia via state courier is in the attached file.